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Amendments to the Claims

The following listing of claims replaces all prior versions of the claims and all prior listings of the claims in the present application.

1-12. (canceled)

13. (new) A tyre for a vehicle wheel, comprising:

a toroidal carcass;

a tread band; and

a belt structure;

wherein the carcass comprises:

a central crown portion; and

two axially opposite sidewalls;

wherein the axially opposite sidewalls end in a pair of beads for mounting the tyre on a corresponding rim,

wherein each bead comprises at least one annular reinforcing core,

wherein the tread band is disposed at the central crown portion of the carcass,

wherein the tread band coaxially extends about the carcass,

wherein the tread band comprises a relief pattern for rolling contact with the ground,

wherein the belt structure is coaxially interposed between the carcass and the tread band,

wherein the carcass further comprises at least one carcass ply,

wherein ends of the at least one carcass ply are anchored to the annular reinforcing cores,
and

wherein the at least one carcass ply comprises a portion that encloses at least one insert in
proximity to the annular reinforcing cores.

14. (new) The tyre of claim 13, wherein the at least one insert comprises at least one
elongated metallic element comprising a plurality of radially superposed coils.

15. (new) The tyre of claim 14, wherein the at least one elongated metallic element is
associated with a filler of elastomeric material.

16. (new) The tyre of claim 14, wherein the at least one elongated metallic element
comprises a plurality of wires, and

wherein each wire has an ultimate tensile stress greater than or equal to 500 N and less
than or equal to 5000 N.

17. (new) The tyre of claim 13, wherein the at least one insert comprises an elastomeric
material.

18. (new) The tyre of claim 17, wherein the elastomeric material has a Shore A hardness
greater than or equal to 70 degrees and less than or equal to 90 degrees.

19. (new) The tyre of claim 18, wherein the at least one carcass ply comprises a plurality of strip elements that enclose the at least one insert.

20. (new) The tyre of claim 19, wherein each strip element is laid onto a toroidal support with a circumferential pitch equal to twice a width of the strip elements,

wherein an outer profile of the toroidal support substantially coincides with a radially inner surface of the tyre, and

wherein each strip element, together with an adjacent strip element, encloses at least part of the at least one insert.

21. (new) The tyre of claim 13, wherein the carcass has a neutral profile, lying in a radial straight section plane, axially extended from bead to bead,

wherein the neutral profile intersects a straight section of fields that encloses respective annular reinforcing cores, and

wherein the neutral profile has a continuous curvature without inflection points along its development between the beads.

22. (new) The tyre of claim 13, wherein the at least one insert has a height measured in a radial direction greater than or equal to 1 mm and less than or equal to 35 mm.

23. (new) The tyre of claim 13, wherein the tyre comprises at least one reinforcing insert in a radially external position to the annular reinforcing cores.

24. (new) The tyre of claim 13, wherein the tyre comprises a reinforcing edge, wherein the reinforcing edge is disposed axially external to at least one of the beads, and wherein the reinforcing edge is disposed radially internal to the at least one of the beads.